Science
Grade-Level Expectations: Kindergarten

Science as Inquiry

The Abilities to Do Scientific Inquiry

1. Ask questions about objects and events in the environment (e.g., plants, rocks, storms) (SI-E-A1)
2. Pose questions that can be answered by using students' own observations and scientific knowledge (SI-E-A1)
3. Predict and anticipate possible outcomes (SI-E-A2)
4. Use the five senses to describe observations (SI-E-A3)
5. Measure and record length and temperature in both metric system and U.S. system units (SI-E-A4)
6. Select and use developmentally appropriate equipment and tools and units of measurement to observe and collect data (SI-E-A4)
7. Express data in a variety of ways by constructing illustrations, graphs, charts, tables, concept maps, and oral and written explanations as appropriate (SI-E-A5) (SI-E-B4)
8. Use a variety of appropriate formats to describe procedures and to express ideas about demonstrations or experiments (e.g., drawings, journals, reports, presentations, exhibitions, portfolios) (SI-E-A6)
9. Identify and use appropriate safety procedures and equipment when conducting investigations (e.g., gloves, goggles, hair ties) (SI-E-A7)

Understanding Scientific Inquiry

10. Recognize that a variety of tools can be used to examine objects at different degrees of magnification (e.g., hand lens, microscope) (SI-E-B3)

Physical Science

Properties of Objects and Materials

11. Identify objects by using the senses (PS-E-A1)
12. Construct patterns by using color, size, and shape of objects (PS-E-A1)
13. Sort objects based on their properties (e.g., size, weight, texture) (PS-E-A1)
14. Determine whether objects are magnetic or nonmagnetic (PS-E-A1)
15. Create and separate mixtures (e.g., oil/water, rice/beans) (PS-E-A5)

Position and Motion of Objects

16. Follow directions using vocabulary such as *front/back*, *above/below*, *right/left*, and *next to* (PS-E-B1)
17. Trace the motion of an object, such as a ball or toy car, as it rolls (PS-E-B3)
18. Sequence the relative order of the speed of various objects (e.g., snails, turtles, tricycles, bicycles, cars, airplanes) (PS-E-B3)

Forms of Energy

19. Demonstrate and identify sounds as *soft* or *loud* (PS-E-C1)
20. Identify objects that give off heat, such as people, animals, and the Sun (PS-E-C3)

Life Science

Characteristics of Organisms

21. Record observations on the growth of plant seeds (LS-E-A1)
22. Classify objects in a variety of settings as *living (biotic)* or *nonliving (abiotic)* (LS-E-A2)
23. Compare the human body at various stages of development (LS-E-A3)
24. Compare the human body with plants and animals (LS-E-A3)

25. Identify easily observable variations within types of plants and animals (e.g., features of classmates, varieties of trees, breeds of dogs) (LS-E-A4)
26. Classify various foods into the major groups (e.g., bread, meat, vegetable, fruit) (LS-E-A6)
27. Determine which foods are superior for developing a healthy body (LS-E-A6)

Life Cycles of Organisms

28. Observe life cycles and describe changes (e.g., humans, dogs, insects) (LS-E-B1)
29. Match models of baby animals with their parents (LS-E-B3)

Earth and Space Science
Properties of Earth Materials

30. Distinguish between areas of Earth covered by land and water (ESS-E-A2)
31. Identify the patterns in information recorded on a weather calendar (ESS-E-A4)

Objects in the Sky

32. Discuss and differentiate objects seen in the day and/or night sky (e.g., clouds, Sun, stars, Moon) (ESS-E-B1)

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